

August 13, 2008

MEMORANDUM

UTAH DEPARTMENT OF TRANSPORTATION

TO: Jim McMinimee, P.E., Chairman

FROM: Barry Axelrod
Recorder, Standards Committee

SUBJECT: Standards Committee Meeting Minutes and Next Meeting

The next meeting has been scheduled for Thursday, August 28, 2008 at 8:00 a.m., in the main 1st floor conference room of the Rampton Complex. The June 26, 2008 meeting was canceled.

Item	Remarks	Sponsor
1. Minutes of April 24, 2008	For approval	Barry Axelrod
2. Supplemental Specification 00727M, Control of Work and UDOT Policy 08-6, Use of Corporate Logos or Branding	For approval (doc page 23)	Stan Burns Robert Miles Barry Axelrod
3. Supplemental Specification 03055, Portland Cement Concrete	For approval (doc page 38)	Bryan Lee John Butterfield
4. Standards Committee Development Process for New Standards	For Information (doc page 57)	Stan Johnson
5. Review of Assignment/Action Log	For review (doc page 20 & 63)	Jim McMinimee
6. Meeting Improvements (on-going agenda item)	For discussion	Jim McMinimee
7. Other Business	For discussion	Jim McMinimee

JCM/ba

Attachments

cc:

Cory Pope Director, Region One	Stan Burns Engineering Services	Robert Miles Standards
Randy Park Director, Region Two	Richard Miller Bridge Design	Barry Axelrod Standards
David Nazare Director, Region Three	Greg Searle Construction	Patti Charles Standards
Dal Hawks Director, Region Four	George Lukes Materials	Shana Lindsey Research
	Richard Clarke Maintenance	Tracy Conti Operations
	Robert Hull Traffic and Safety	Anthony Sarhan FHWA
	Michael Adams Traffic Management Division	Mont Wilson AGC
	Brad Humphreys Region 1, Preconstruction	Tyler Yorgason ACEC

April 24, 2008

A regular meeting of the Standards Committee convened at 8:00 am, Thursday, April 24, 2008, in the Project Development Conference Room, 4th floor, of the Rampton Complex.

Members Present:

Stan Burns	Engineering Services	Acting Chairman
Robert Miles	Preconstruction, Standards, and Local Government	Secretary
Barry Axelrod	Preconstruction, Standards, and Local Government	Recorder
Shana Lindsey for Stan Burns	Research	Member (filling in while Stan Burns is acting chair)
Brad Humphreys	Region 1, Preconstruction	Member
Greg Searle	Construction	Member
Richard Clarke	Maintenance	Member
Robert Hull	Traffic and Safety	Member
Steve Anderson for Tim Biel	Materials	Member
Richard Miller	Bridge Design	Member
Michael Adams	TOC	Member
Mont Wilson	AGC	Advisory Member
Tyler Yorgason	ACEC	Advisory Member
Roland Stanger for Anthony Sarhan	FHWA	Advisory Member

Members Absent:

Jim McMinimee	Project Development	Chairman
Randy Park	Region 2	Member
Tim Biel	Materials	Member
Anthony Sarhan	FHWA	Advisory Member

Staff:

Patti Charles	Preconstruction, Standards, and Local Government
John Leonard	Traffic and Safety
Patrick Cowley	Preconstruction

Visitors:

None

Standards Committee Meeting

Minutes of the April 24, 2008 meeting:

1. Minutes of October 25, 2007 meeting were approved as written. Note, there was no February 2008 meeting.

Discussion points were:

- Richard Miller said he wasn't clear on what Boyd's tasking was with the cracking problem. This is an unresolved issue on the Action Log. Barry said he sent Richard an e-mail on this just before the agenda went out and that it went back two or three meetings. Richard said he brought it up now because it is in the minutes.
- Stan asked if anyone had more information on this item. Barry said he didn't remember the exact details but it was in relation to drawing changes that were approved last year. Barry said more details are in the minutes of the meeting where it was first discussed and he would check those. Richard said he would be interested in the background.
- There were no additional comments on the minutes.

Motion: Richard Clarke made a motion to accept the minutes as written. Seconded by Robert Hull. Passed unanimously. Following the meeting John Leonard pointed out an editorial update to the minutes. On document page 18, item 15, discussion point three, John pointed out that NCHRP should be MUTCD in both locations.

Procedural Note: John was not available until later so the meeting continued with Agenda Item 3.

2. Supplemental Drawing, DD Series, Deletion for move to Manual of Instruction (Agenda Item 3) – Presented by Robert Miles.

Robert pointed out that this item is for discussion. Robert said as he was doing some of the ground work he received comments on a variety of opinions and therefore was not comfortable moving forward with this item at this time. He said more research is needed but that he would still like to discuss the item.

Robert said the general proposal is to take the drawings currently listed as DD 1 through DD 16 and relocate those to various manuals of instruction. He said they would remain as Standards but be in a new location. Robert said most would end up in the Roadway Design Manual of Instruction. He said the idea behind this is to consolidate the location of the data to enforce our manual of instruction as an actual resource for people to use particularly those who work outside our normal work flows. Robert said he thought we would get a more consistent product.

He said we needed to have a discussion on how types of drawings are handled. Robert said this issue will come up again with the structural design ABC drawings.

Discussion points were:

- Richard Miller said they have standardized structural drawings. He said he discussed this with Robert on whether the drawings have to come to the Standards Committee for approval or can they maintain their own Standards in Structures.
- Shana asked if the drawings could be bundled when done and then brought to the Committee for approval. She thought the Committee should approve the drawings. Richard said that is a good idea adding that in his mind the drawings will never be done. He said they will always be finding new products or better ways to do something, always evolving. Richard said when the drawings are done he wanted to post them on the Structures Web site. Shana asked if they would be Standards. Richard said they would be Standard Structural Drawings and that was why he was asking if they had to come to Standards Committee.
- Robert said another issue is the purpose of having Standard Drawing and what we expect people to do with them. He said he feels many of our Standard Drawings are self-contained, meaning you could hand them to anyone and say “go build this item.” Robert indicated a catch basin would fit that category. He gave a couple other examples.
- Robert went on to comment on other types of drawings, like the structural drawings Richard commented on and some intersection drawings. He said we would be remiss in giving those to a contractor or maintenance crew and say “build me an intersection like this” or “build me a structure.” He said inherently there is more engineering we expect to happen behind the scenes with the application of some of our Standards. He said he wonders if we have effectively handled that.
- Steve Anderson commented that he wondered if put into all these manuals would they get lost. He also asked how would the drawings be updated. Steve said it would be a good thing if they went through the Standards Committee. He asked why they couldn’t be in both places, adding that he would like one source to go look for. He said there is more control that way and it can be enforced a little better. He said if you put it in just a manual of instruction is it a guide or Standard Manual of Instruction. He said you then have to continually update the manual of instruction, not like in the past where the last update was years ago. He said as a designer you need one location instead of going to many locations, adding that it is hard to find the manuals of instructions for the different divisions. He said a central location like the library is needed. Links could then be set up.

- Robert said those are good points and that is why this item is here for discussion and not approval. He said he is uncomfortable asking for action from the Committee at this point because of the many concerns.
- Mont asked if Contractors needed access to these Standard Drawings. Robert said yes to some of the details on the DD Drawings.
- Richard said whenever Standard Drawings are developed the person needs to meet with industry, contractors, fabricators, and consultants not just developed in house without that coordination. He went on to explain how that was done with their new drawings. Robert said our process supports that.
- Shana agreed with Richard that the drawings will be changing. Shana said they will be perfecting the Standard, making it better. She said because the drawings are still in the research phase and are still being developed and didn't think they should come to the Committee yet, but could be put on the Web with a link from the Standards. She said when close to final the drawings should then be brought to the Committee, but not while in development. Richard agreed, adding that the drawings could be here for just about every meeting.
- Stan commented that we go out and develop Standards and put them on the Web page but it never comes through this Committee because the drawings are continually being updated. With that Stan asked about the purpose of this Committee if not to put their approval on something going out to the contractors. Shana said eventually the Committee would approve the drawings. Shana said you don't bring something to the Committee when only half way through development. Steve said then you wouldn't post it as a Standard. Shana said you could call it something different. Richard, suggested "Structural Standard." Stan said at some point the contractor will have to build something, but it won't come through this Committee.
- Robert Hull said the bigger issue isn't necessarily the "who," but what are the changes and what is the impact to the project for all resource aspects. Is it going to cost us more money? Is this going to put an undo burden on the contractor? Robert said that is why this Committee is supposed to look at the drawing and should come here before going into a project.
- Stan commented that when Jim first became chairmen of this Committee his main goal was to look at our Standards and see if they were more restrictive than AASHTO. Stan said at that time the Committee agreed that AASHTO would be our guide and we would only be more restrictive if we could show a cost - benefit that it is more appropriate. Stan said he is concerned that they could put out a specification without Committee approval that is more restrictive than AASHTO.

- Richard said his plan was to bring the specifications to the Committee but the issue came up with regard to the drawings. Stan commented that he and Richard want to get the ABC Standards out on the Web as soon as possible, adding that he has another role as a Committee member. Stan said that causes a conflict. For example commenting to Robert Hull, Stan said if Robert changes one of his specifications he has to bring it to this Committee.
- Shana said we have a good process for current Standards and modifications, but what do we do when we have something brand new. What is the process in that case? She asked if we approved that, do we change it again when something changes. Robert Miles commented that we work off a set of details that are being developed until we are comfortable with them and then bring to the Committee. Shana asked when does it come in to the Committee. Robert said he didn't think anyone has defined that.
- Barry explained how this has been done in the past. He said an item is used for a construction season or two so the item can be refined while still using it. Barry said once you get to a point where the owner of the item is comfortable with it a decision is made. Barry said once everything is done that can be and all coordination is complete then the item comes for approval. Barry added that once approved we don't expect it to come back meeting after meeting with changes. Barry went on to explain the Deviation from UDOT Standards process and the required form. Barry said we have a process, but what we don't want is repeated changes like in the past. Barry said that was where we were several years ago, but not anymore with the current process. Barry said the regions asked time after time why we are changing Standards so often. He said it is difficult on the regions when it comes to designing projects if you keep changing a specification or drawing.
- Robert Hull said another thing is how wide-spread is this item going to be. He said in this case it is something for every structure and therefore a very significant impact. He said this needs to be looked at.
- Stan asked about ATMS and how it was developed over the years. Barry said he remembers several years ago sitting in an office with Farrell and the person working on the ATMS Standards over a period of time refining the specifications and drawings. Barry said at that time the items were not part of the Standards. He said a lot of time was spent in the revision process and once approved were not changed every month or so.
- Barry said they had some specifications that were changing all the time, referring to the Materials Sections. He said that was the nature of the industry at that time. Barry said we have gotten away from that with the current coordination process and submittal sheet.

- Stan said it would be difficult for contractors if we change too often. Stan commented that he thought a six-month review period may be an option that would help the contractor. Barry commented that it would also help the designer.
- Shana commented that the contractor would be more comfortable if approved. Stan agreed from the standpoint of the Structures specifications, but Robert Hull's issue is much bigger. Robert Hull said in that circumstance you have to look at the final outcome. Robert said if the final outcome you are trying to achieve is more people using the manuals of instructions is this the best way to do that by removing these Standard Drawings. He said there are two separate issues.
- Robert Miles said Richard's drawing could get there, adding that we are now talking about new technologies and getting them into the Standards.
- Robert Hull said this is two different processes. He said one is the process of getting new Standards established, while Robert Miles is dealing with the manual of instruction and the concept of eliminating the DD Drawings.
- Tyler commented on the issues from a consultant designer standpoint. He said separating the design part from what the contractor uses is a good idea to move the design information to one location. He said right now some designers look all over the place for information. He said there is no single place with design information so consolidation would be good. Tyler said he didn't know if the direction was stick with the way it has been with a combination of things or to have the Standard Specifications and Standard Drawings directed to the contractor and a separate thing directed to the designer. He said he didn't know if that was the direction but it seemed logical. Robert Miles said that was one of the thought processes. Robert said his specific suggestion to move the DD Series Drawings was not necessarily to remove them from the control of the Standards Committee. He said he is not comfortable with three or four designers getting together and saying this is how we are going to design things from here on out.
- Tyler said that brings up the next point of keeping some process in effect. Steve said it could still be located in one book with for example the front part for design and the back part for construction. Steve said if more information were needed you could look in the other part, but it would still be a single point where everyone goes to look. Robert said that is kind of what we have now with the DD drawings. Robert said his original contention was there really wasn't much in the DD drawings that the contractors or maintenance people were going to need. He said as comments came in that approach may not have been correct with some information on the drawings others may need. Robert said he isn't sure which way to go.

- John Leonard commented that we are at the extremes here and those in the middle need to be considered. He said that includes utilities and permits as we give the drawings to them to design and build in a short period of time. John said don't forget the other stakeholders out there. Robert agreed. Robert said we may need to spend less time on location and instead stress our manuals of instruction to designers. Robert said he thought if the DD drawings were located in the manual it would give the designers more information to draw on and UDOT would get a better product.
- Greg said the drawings are valuable to the construction people and they do refer to a lot of the DD drawings. Greg said they have a lot of inexperienced people, transportation techs for example, so one location would be good otherwise they won't find the information.
- Robert said he will have to revisit his proposal given the additional information. He said he would make a more concerted effort to work with the permits people on stressing the manual of instruction and possibly copying the drawings to the manual. He said he didn't like the idea of having data in two different locations.
- Robert Miles said he is looking for confirmation if this is the direction to take. Shana said she wasn't sure the drawings needed to be separated. Stan said Robert Hull identified two issues. Stan said the one on splitting the drawings has been addressed. Stan said the other deals with Committee responsibility on new drawings. He said that discussion needs to continue.
- Shana asked Mont for his opinion. Mont said he liked the drawing in both places even though that option could be an administrative problem. He said there is no doubt that contractors refer to the DD drawings. He said removing that ability would be a mistake. Richard Miller said a link could help with that for new drawings. Robert Miles commented that Mont was referring to the DD drawings, not new drawings.
- Addressing Mont, Robert Miles asked as we develop new technologies, ABC for example, is it easier if Richard's group maintains a set of working drawings until they reach a certain point that everyone is happy with and then come in as a Standard Drawing or are you better with a series of intermediate Standards that come out of this Committee. Mont indicated the first option, using the working drawings. Richard said he didn't want to bring in intermediate Standards.
- Stan said they didn't want to develop new ABC Standards without some review. Steve commented that would be done anyway when the intermediate drawings are developed by having contractors and all the groups do a review. Richard said that leaves the Standards Committee out.

- Barry said that the item can still be brought for discussion. Barry said what they don't want is approval one month knowing there will be changes that will be brought back the next meeting. Barry said that doesn't mean this group can say we agree with what you are doing. Barry said it could be an on-going agenda item for discussion of updates. Robert Hull said the thing you have to be worried about is you don't want to flop all the way to the other side and never bring an item here, and it is always a working drawing. Robert said it is never a Standard, never enforceable. Robert said the issue isn't about structural drawings but is developing a process to handle all these issue. He said we need to separate the structures thing out of it and we need to look at the process of new technology. Robert said that is what the assignment should be and don't get confused with the structures drawings. Stan asked if that was a motion. Robert indicated yes. Shana said this would be for any new technology. Shana said the two extremes are to bring it every month or when complete. She said we may need to come up with something in the middle where we come up with a frequency for review. She said that could be quarterly or semi-annually. Mont suggested having a ten minute section of this meeting set aside for the review of those items.

Motion: Robert Hull made a motion that the Standards Committee make an assignment to the appropriate person to look at and develop recommendations to handle new technologies and report back to the Committee. Seconded by Shana Lindsey. Shana also indicated she would take that assignment as being part of the Research Division responsibility. Passed unanimously. There is no Standards update approved as part of this motion.

Action Item: Shana Lindsey to develop a plan for the review of new technology by the Standards Committee.

Action Item: Robert Miles to continue coordination and review of the DD Drawings issue.

3. Supplemental Specification 01554M, Traffic Control (Agenda Item 2) – Presented by John Leonard.

John said this change includes editorial changes to conform to the MUTCD and TC Series Standard Drawings and the change based on previous discussions. He said the second deals with limitation of operations and was first brought by senior management asking for something in our Standards to control the movements on projects so we are aware when heavy equipment is moved across the roadway. John said when first brought to the Standards Committee there was a lot of discussion with the direction to work on it for a while and then include the change in Traffic Control instead of the general provisions.

John said he thought it would be an editorial change last year in time to make the 2008 Standards but the decision was made to bring it back after the 2008 edition was published. Referring to the Comment Form, John said most indicated they didn't have a problem with the change, but others were concerned that it would be required on all highways. John said that is not the case and it is not required on all highways. He said it is required only where adequate gaps are not available, going on to explain the process when gaps are not available.

Discussion points were:

- Steve asked what is considered an adequate gap. John said that is a catch phrase and depends on the type of vehicle or equipment and the location. He said it also depends on the traffic stream. He said we have to rely on experience and knowledge of our individuals as well. Robert Hull commented on the situation that brought this on. Robert said the most appropriate group to conduct the slow down is law enforcement, not the contractor.
- Stan asked if the average contractor would know when there is an adequate gap or not. Mont said no, adding that at some point someone has to make the decision as to whether there is an adequate gap or not. Mont said he didn't know who that would be. John said to keep in mind that this is a planned event. John said you know when you are going to move a pile driver across the highway. John said for a paving operation you should already have flaggers who should be following set procedures. John said don't think of this as a normal everyday occurrence. It is a planned event and is not an attempt to correct errors in everyday occurrences. There are procedures to handle those cases.
- There was a question as to whether this applied to maintenance crews. John said not usually because this is for preplanned events and maintenance doesn't usually fit that.
- Robert Hull said the point is not to take engineering judgment out of the situation, but on the other hand engineering judgment was not applied for whatever reason in the situation that led to this. He said common sense is needed. Robert asked if you were driving down the road who would you be more likely to respond to, a construction vehicle trying to slow you down or a law enforcement vehicle. He said that is the level of security they are trying to build into the situation.
- John said the second issue is that they are also trying to create a dialog in that in the particular instance the contractor did not notify the Resident Engineer (RE) or any UDOT personnel that they were doing the move. John said they aren't saying you have to do this every time, but only if you believe the situation falls into this category. He said there may other ways to do it or other times of the day.

- Barry asked if that needed to be included in the change so there is no doubt when to use the procedure. John said they tried to do that in the definitions. Barry commented that these questions are coming up, asking what will happen in six months from now. Barry asked if the wording could be expanded to take out some of the doubt.
- Richard Miller asked Mont if he thought this was a punishment for all contractors because one couldn't follow the rules. Mont said no, adding that it is a safety issue.
- Richard Miller commented that the comment log was handled very well, but because he wasn't on the Standards Committee at the time he was not included. Richard went on to ask about the definitions. He said specifications are written to the contractor and for the REs to enforce and that the Region Traffic Engineer (RTE) should be contacted. John said the reason they chose the RTE over the RE was because the RTE has a more global view where the RE is focused on the event. John said the RTE would be aware of other events or circumstances that could have an impact. Richard said that our contracts state the contractor will go to the RE, but now we are sending them to the RTE. John said he is concerned that the RE is too narrow a focus. Richard agreed, pointing out that contracts are written for the RE and now we are adding a third person in the mix. Robert Miles said we already do that with the Public Involvement specification, going on to explain.
- Various wording options were discussed. Shana said she agreed with John. Richard said that everyone can disagree with him and he is okay with that, adding that he is still going to go back to the fact our specifications are between the RE and contractor.
- Someone asked John if this is a planned event how does it interact with the Traffic Control Plan which does involve the RTE. John said this is part of the fluid dynamics of the project. The person commented that this is something that comes up after that, asking if it is a planned event could it be put in the Traffic Control Plan. John said that could be done but typically what we are talking about for example is a bridge widening and the use of a pile driver. John said at some point the pile driver needs to be moved to the other side of the bridge. He said a lot of times that is not seen in the Traffic Control Plan because this is for one event, not the entire project. John said just give us two days notice is all this is saying.
- Richard said he was fine leaving approved by the RTE through the engineer. He said he had the same comment for article 3.7A6. Richard said he totally agrees that the RTE needs to be involved but you still have to go through the RE.

- John asked how the wording should be changed. Richard said leave the RTE in but have it go through the RE. Various wording options were discussed.
- John said he would update the change to have it go through the RE.
- Discussion continued on the definition of peal hours. Robert Miles suggested the change state the peal hours are “generally” defined as that listed because limitation of operations covers it or as listed in limitations of operations.
- There was significant interference from cell phone feedback on the recorder so a couple of comments were lost.
- Someone asked if the type of vehicle the police office is in needs to be specified. John said the main thing they wanted was the overhead lights as being easier to see compared to ones inside the vehicle for example.
- Mont asked if payment needed to be discussed with respect to the police officer. John said typically they don’t charge for something like this as this is an on-duty officer who comes by for the few minutes needed. John said this is considered part of their normal duty.
- Comments indicated 3.1A6 needed to have a verb included so it read better.
- Stan asked if there were more comments or discussion. There was none.

Motion: Richard Miller made a motion to approve Supplemental Specification 01554M as discussed and modified. Seconded by Shana Lindsey. Passed unanimously.

4. Supplemental Drawing DD 11A, Grade Separated Arterial (Agenda Item 4) – Presented by Robert Miles and Patrick Cowley.

Robert Miles said that Jim had asked them to look into a Standard for high capacity arterials. He said they started by reviewing existing Standards and AASHTO requirements. Robert said they coordinated with Traffic and Safety and region designers.

Comparing the drawing to DD 11, Patrick said the changes dealt with the positive separation. He said anything less than 50 feet in the median would require positive separation. He said they also included a detail for a paved median. Patrick said another change was on the outside shoulders dealing with the slope.

Discussion points were:

- Based on a question Robert explained the slope requirements.

- In response to a question as to why the DD 11A requirements were not just added to DD 11, Patrick said DD 11 is for rural, allowing intersections while DD 11A is grade separated and does not have intersections.
- Roland Stanger asked what grade separated meant. Patrick said it is like freeways, adding that you wouldn't have at grade crossings, intersections, or turn lanes for example. Roland said he liked the positive separation.
- Roland went on to comment about barrier offset in Note 18. Barry said there is no Note 18 on DD 11 or 11A. Roland said his version did. Patrick said based on comments, that was one of the changes reflected in the packet and that may be the older version. Roland said the drawing was sent just a week ago. Barry said it had to be an older version as the dates didn't match. Robert said the first time they tried to send Anthony some files they wouldn't go through and when resent it looks like the wrong files were sent.
- Referring to Note 16, Roland asked why were we going away from the 8 foot shoulders. Robert said it was three or more lanes. Roland said that was not AASHTO. Patrick commented that is was only the inside shoulder.
- In response to a comment from Roland, Robert said the barrier offset is not included in the 8 feet. John said that was reflected in the drawing. Robert said Note 16 comes off the median detail. John commented that the detail was not labeled. Patrick said they had but removed it, adding that they will come up with a better label. He said the one they originally had was misleading.
- In response to comments and discussion Robert said DD 11 is titled Rural Multi-Lane Highway Other Than Freeways. Robert said they are trying to introduce a drawing specifically for use as an arterial drawing that would be grade separated but wouldn't need to be designed to freeway or Interstate type Standards. Robert said the DD 11A number may not have been the wisest choice of numbers so that may have added some of the confusion. During coordination Robert said they received a lot of comments as to why it wasn't included on DD 11. He said they made changes to the drawing that clearly define why DD 11 was not used, but the DD 11A was still maintained. He said they could change the number to DD 17.
- Robert said the idea was to have an intermediate Standard to use on that type of facility. He said we could be a little more aggressive in minimizing our right of way takes.
- John suggested splitting Note 6 into two notes as it is two separate thoughts.
- Tyler commented that on the upper left detail there was a dimension arrow with no dimension. Patrick said it should have been removed. Tyler said the left side annotation on the median shoulder should match the right side.

- Referring to the 14 foot minimum width on the median, Tyler asked why does it show that as you can't get anything even close to 14 feet. Patrick said they wanted the 14 feet for the designers, going on to explain the relationship of Note 14 and Note 7.
- Greg said he was concerned about using the lower detail in Utah County. He said they have very narrow inside shoulders and it is a safety hazard and maintenance problem. John commented that a design exception was approved because another project was coming through to correct the shoulder problem. Greg said he was just using that as an example to show they don't want this unless they have to have it. Patrick referred to Note 16 about the width changing for three or more lanes.
- Someone commented about using regular 10 foot shoulders. Robert Miles said to wait, going on to say they are looking for the most aggressive cross section they could have and meet AASHTO Standards. Someone said there are times to use this but we need to make sure it is not used when not needed. Richard Clarke said based on that comment this would be the exception. Discussion continued about a note to limit use and wording options for Note 16 for minimums.
- Robert said that was fine but by listing a minimum then that will become the Standard. He said he wanted to make sure everyone understood that and that he was not disagreeing with the comments. John said with Design – Build whatever width you want you put it in the specification. John said in this case the notes are saying it is acceptable to use an 8 foot shoulder, adding that you can always specify something greater.
- John commented about the area outside the 6 to 1 slope, asking if it needs to be defined. Patrick said the note on maintaining the clear zone covers that. John said he was okay with that.
- Stan asked if there were any other questions or comments. Being none, Stan asked for a motion.

Motion: Richard Clark made a motion to approve Supplemental Drawing DD 11A (now DD 17) as discussed and modified. Seconded by Richard Miller. Passed unanimously.

5. Review of Assignment/Action Log (Agenda Item 5)

- **Item 1: Supplemental Specification 01554, Traffic Control.** Stan indicated this was now complete. Item approved in agenda item 2.
- **Item 2: Cracking problem.** Stan said the cracking item is now assigned to Richard Miller. Barry said he had the notes from the initial meeting when this was first addressed. He said it was from the August 2007 meeting, in the October 2007 package.

Barry said it was part of the discussion for Standard Specification 02861. He went on to quote the minutes from the August 2007 meeting. The following is copied from those minutes.

- Standard Specification 02861, Precast Retaining/Noise Walls and Standard Drawings SW 2, Noise Wall Placement Options; SW 3A, Precast Concrete Noise Wall 1 Of 2; SW 3B, Precast Concrete Noise Wall 2 Of 2; SW 4A, Precast Concrete Retaining/Noise Wall 1 Of 3; SW 4B, Precast Concrete Retaining/Noise Wall 2 Of 3; SW 4C, Precast Concrete Retaining/Noise Wall 3 Of 3 (new drawing); SW 5, Precast Pilaster Post (new drawing), and SW 6, Precast Concrete Panel Surface Texture Options (new drawing) (Agenda Item 11) – Presented by Ray Cook.
- Stan said he had a question on SW 4C in the middle of the drawing or on SW 4B in the middle. Referring to what he calls “ears” Stan asked about cracking if that problem has been solved. Boyd said they were unaware of a cracking issue so they have not any changes to the posts. He said all their changes were to the panels. Some parts of the discussion could not be heard, but Stan did comment on wear and tear being part of the issue. Boyd said that is something they need to design for. Boyd said the columns are not designed for impacts so they expect that the columns would fail when impacted.
- Boyd said they do have very tight fabrication tolerances on the posts and very minimum cover. Boyd said they could reinvestigate the issue and make the columns stouter if that is the desire. Stan said he would be fine if it was just looked at. Boyd said they would contact their Central Materials people and Traffic and Safety and compile how big an issue it is.
- The following Action Item is from the August meeting: Boyd to research column cracking problem and if needed update the drawings.

Barry said the information is on the Standards Committee Web site for the October 2007 package, agenda item 11. Richard will review the item and provide an update.

- Two new items were added to the action log.
- The status report as handed out at the October 2007 meeting follows:

Action Item Update for April 24, 2008 Standards Committee Meeting

Item 1, Supplemental Specification 01554M, Traffic Control: Item is on the agenda for the April 24, 2008 meeting for approval.

Item 2, SW Standard Drawings, cracking issue. Richard Miller is now the contact for this. He was just contacted for an update so there is no report at this time.

Stan then skipped to Item 7, Other Business.

6. Meeting Improvements (on-going agenda item) (Agenda Item 6):

Stan asked if anyone had any recommendations.

Shana referred back to the first discussion as being a good recommendation for improvement.

7. Other Business:

Type 3 vs Type 9 Sheeting, AGC Concern

Stan said at the monthly AGC meeting last week AGC asked for a clarification on the requirement to change out all traffic control devices Type 9 by 2010. He said the AGC was concerned about impacts to business and asked if that could be revisited. The proposed that someone on the Standards Committee work with John Leonard and the AGC to look at the ramifications from changing from Type 3 to Type 9.

Discussion points were:

- Stan asked Mont if that was stated correctly from the AGC point of view. Mont said yes. Continuing, Mont said if we go to Type 9 within say the next 20 months there will be a lot of contractors stuck with some existing Type 3s that have been paid for. Mont said his guess is they would either have to retro-fit them or throw them away and that bothers them. He said there was no argument with going with the Type 9 sheeting. Mont said the AGC suggested it be brought to the Standards Committee for consideration to lengthen the transition period from 20 months to five years.
- John said the transition is three years because anything new since May 10, 2007 should have been Type 9. Mont said they understood that by January 1, 2010 they would all have to be Type 9. John said that was based on them giving three full construction seasons to use the existing inventory. John said that was their rationale and that there should not have been anything manufactured in the lower grades since last year. He said that is almost a year now with another two years to go, giving them three construction seasons.
- In response to a comment from Stan, John said anything purchased since May 11, 2007 should have been Type 9. He said that gives them three construction years to use their existing equipment and based on a lot of their experience most of them don't last much longer than that.

- Mont said he didn't know if that is valid or not, but he said the life cycle was five years. John reiterated their thought process.
- Robert Hull said the more critical issue from their standpoint is that we would not get new material or items built with the old Type 3 material. He said they realized there would be devices that lasted longer than the period they thought. Robert said they didn't have a problem coming up with something that works for everyone.
- John asked Mont who their representative is for them to contact. John mentioned a name but it could not be understood. Mont said the person was the spokesman and was telling the contractors, to illustrate the cost angle of this, that a barrel today with the Type 3 on it costs \$56 and with the Type 9, \$78. Mont also gave a sign cost comparison with the Type 3, \$100 and the Type 9, \$140. Mont said he didn't know whether or not that was a concern to UDOT.
- John said the life cycle of the Type 9 will be longer than the Type 3. He said the more durable sheeting will last longer with a higher level of reflectivity. Mont said for contact it would be him and the person mentioned. Mont said to let him know of the discussion with the person and he would take it to the AGC. John asked Mont if he would like to be involved in the discussions. Mont said yes. John said he would set something up.
- Stan said someone from the Committee should take it to the next AGC meeting. Robert Miles said he goes to the AGC meeting so he could take it. John said the discussions would involve Robert Miles and Richard Clarke.
- Mont asked if a good question would be why we are going to a Type 9 when the Feds require a Type 3. Stan said that was a good question and why are we exceeding Standards.
- Robert Hull said this gets to the point as to where we are going with the aspect of safety in work zones. He said there are certain levels of reflectivity that impacts construction devices. He said these discussions have been going on for years. He says it boils down to what materials provide us the optimum visibility levels of these devices out on the roadway. Robert said barrels and signs in work zones are some of our most critical issues when it comes to the driving public. He gave an example, saying that the public needs visual information as to what is going on. Robert said the Type 9 sheeting is giving us the best opportunity to demonstrate to the driving public the changes that are going on. He said it not only impacts the public but the safety of the workers.
- Mont said he didn't think there is any argument that the Type 9 is better. Mont asked why wouldn't the Feds use that same argument and make everyone go to the Type 9. Robert said he can't speak for the Feds, but there are many circumstances where the States are the ones driving the improvements.

- Stan said we all agree that the Type 9 would be a great improvement in the work zone. He said the question he has to bring up is the same that is brought up at every meeting, that being if we exceed the Standards we have to show a cost benefit. Stan asked John if they could do that. John said they already did when the item was first brought to the Committee. He said they did a cost benefit analysis. He then recapped that earlier information.
- Stan asked if Type 3 could be used entirely on a project or as mix and match. John said as long as the Type 3 is in good shape they fully anticipate and encourage use.
- Mont commented on the next AGC meeting, adding that they would be very appreciative hearing John's explanation.
- There was no additional discussion. Stan moved back to Item 6.

A motion was made, seconded, and approved to adjourn.

The next regular meeting of the Standards Committee has been scheduled for Thursday, June April 26, 2008, at 8:00 a.m., in the 1st floor conference room of the Rampton Complex.

Approval of Minutes: The foregoing minutes were approved at a meeting of the Standards Committee held _____, 2008.

Assignment/Action Item Log

Date Initiated/Updated	Item #	Action	Assignments	Status	Target Date
August 30, 2007	1	- SW Standard Drawings. Research column cracking problem and if needed update the drawings per agenda item 11 from August 30, 2007 meeting.	Boyd Wheeler	Open	June 2008 meeting. If no changes required item can be discussed and closed as required during Action Log review.
October 25, 2007		- Not resolved. Not sure how big an issue. May require future change.	Contact changed to Richard Miller at later time due to personnel changes.		
April 24, 2008		- Item reviewed. Richard Miller to review.	Richard Miller		
April 24, 2008	2	Review Process. Develop a plan for the review of new technology by the Standards Committee.	Shana Lindsey	Open	August 2008 meeting.
April 24, 2008	3	Continue coordination and review of the DD Drawings issue.	Robert Miles	Open	None set.

Closed Items From Last Meeting (April 24, 2008)					
Date Initiated/Updated	Prior Item #	Action	Assignments	Status	Target Date
August 25, 2005	1	- Supplemental Specification 01554, Traffic Control (originally tracked as 00555M, Prosecution and Progress, Limits of Operation): Coordinate the required action to have the process placed in the proper location, to the detail necessary and bring the recommendation to the Standards Committee for approval.	John Leonard	Closed	Closed
October 27, 2005		- Item not ready. To be reviewed by the Operations Engineer. Target date updated.	Tracy Conti		
February 23, 2006		- Direction being reviewed by upper management.	Robert Hull		
April 27, 2006		- Still being review by upper management for direction.			
June 29, 2006		- No change other than item may be on hold.	Robert Hull		
August 31, 2006		- No change.			
November 30, 2006		- Item being reviewed. Changed to track as Section 01554.			
February 22, 2007		- Still being worked			
April 26, 2007		- This item was incorporated at the request of the Standards Committee into the Traffic Spec 01554. This will be done in the review and modifications to this spec, before the August deadline			
June 28, 2007		- No new information. Not due until August.			
August 30, 2007		- No new information. Past due.			
October 25, 2007		- Information passed on but not finalized.			
April 24, 2008		- 01554M Approved.			

Standards Committee Agenda Items Section

Submittal Sheets, Supplemental Specification Drafts, Standard Drawing Drafts, and other supporting data as required for the August 28, 2008 Standards Committee meeting follows.

Standards Committee Submittal Sheet

Name of preparer: Robert Miles and Barry Axelrod

Title/Position of preparer: Preconstruction Engineer/Technical Writer

Specification/Drawing/Item Title: Control of Work

Specification/Drawing Number: 00727M

Enter appropriate priority level:

(See last page for explanation) 3

Sheet not required on editorial or minor changes to standards. Check with Standards Section.

NOTES:

1. All Submittal Sheets must be completed and sent to the Standards Section by the Standards Committee suspense date as shown on the Web.
(<http://www.udot.utah.gov/go/standardscommittee>)
2. The Preparer of the Submittal Sheet or the Standards Committee member (or authorized substitute) responsible for the submittal must be present at the Standards Committee meeting and capable of discussing and answering all questions related to the submittal. The item will be postponed to a later meeting if one of these people is not present.
3. Notify the Standards Section immediately of any changes that impact the presentation to include absence of sponsor or delay in presentation.

Complete the following: (Use additional pages as needed.)

- A. Why? Detail the reason for changing the Standard (Specification or Drawing), what has initiated a new Standard, or what has caused a new or changed item of interest.

Currently there is a Consultant Services memo, dated July 19, 2006 for use on Consultant contracts however this is not something used or referenced by Contractors. Because of the recent placement of banners on UDOT construction projects and questions/complaints on the usage, a modification to the Department Standards is needed. This change would prohibit the use of contractor logos or branding on any project deliverable.

Logos or branding identification on contractor owned vehicles, equipment, and apparel not prohibited.

- B. Measurement, Payment, Acceptance, and Documentation:

1. How is Measurement and Payment handled? Existing (from the measurement and payment document), modified, or new measurement and payment to be included with all Standard Specifications or Supplemental Specifications.

Not applicable.

2. How is Acceptance and Documentation handled? Existing (from the acceptance and documentation document), modified, or new acceptance and documentation to be included with all Standard Specifications or Supplemental Specifications. Include Contractor Submittals, Inspection Elements, and Documentation.

Not applicable.

C. Stakeholder Notification for AGC and ACEC:

By email provide the AGC and ACEC Standards Committee member a copy of all pertinent information relating to the specification or drawing. Detail all responses below. Indicate if no comments were received.

Note: There is a two-week response time set for this item.

Refer to the Standards Committee Web site, Members page at <http://www.udot.utah.gov/main/f?p=100:pg::::1:T,V:659> for the respective e-mail addresses.

AGC Comments: (Use as much space as necessary.)

Mont did not receive any inputs to initial request. Followed up with a phone call with a question. Refer to comment log.

ACEC Comments: (Use as much space as necessary.)

Refer to comment log. Tyler had one comment.

D. Stakeholders? From the list provided, document the stakeholders contacted, detailing: the company, name of contact, how contacted (by phone, email, hard copy, or in person), concerns, and comments of the change. Stakeholders:

Note: There is a two-week response time set for this item. Allow Stakeholders two weeks to process and respond to coordination requests. All areas should try to complete review and comment as soon as possible but within two weeks.

In-house (for example, preconstruction, materials, construction, safety, design, maintenance) (Include all applicable in-house areas even if not listed above.)

This section to be updated following coordination.

Construction Engineers

Refer to comment log.

Contractors (Any additional contacts beyond "C" above.)

See above.

Suppliers

N/A

Consultants (as required) (Any additional contacts beyond “C” above.)

See above.

FHWA (To be accomplished as part of the two-week process before submitting to the Standards for inclusion on the Standards Committee agenda.) (This is in addition to the requirements of UDOT Policy 08A5-1, procedure 08A5-1.3.)

Refer to comment log.

Others (as appropriate)

None.

- E. Other impacted areas, systems, or personnel. (Consider all impacts and possible changes to these areas during the preparation process. Coordinate with all appropriate areas for the respective item. List all impacts and action taken.)

1. Minimum Sampling and Testing Requirements

Not applicable.

2. Business Systems (Electronic Bid System, Project Development Business System, Electronic Program Management, Computer-Aided Drafting and Design, etc.)

Not applicable.

3. Implementation Plan (Provide detailed instructions on how the subject item will be implemented to include notification of all interested parties and training requirements.)

Normal notification of Standards updates to be posted on the Standards Web site and notice sent to the Standards listserver group. Updates will be provided by the UDOT Engineer for Construction at the first AGC/UDOT meeting and the Director of Engineering Services at the first ACEC meeting following publication.

F. Costs? (Estimates are acceptable.)

1. Additional costs to average bid item price.

Not applicable.

2. Operational (For example, maintenance, materials, equipment, labor, administrative, programming).

Not applicable.

3. Life cycle cost.

Not applicable.

G. Benefits? (Provide details that can be used to complete a Cost – Benefit Analysis.) (Estimates are acceptable.) (If no costs, what is the benefit of making this change?)

Project standardization, elimination of confusion/conflict with Consultant contracts, and elimination of possible distractions to the driving public when driving through a work zone. While it may not be measurable, any elimination of a distraction has a positive impact on safety.

H. Safety Impacts?

See Item G.

I. History? Address issues relating to the current usage of the item and past reviews, approvals, and/or disapprovals.

A new policy, 08-6 (Use of Corporate Logos or Branding) is also being written and coordinated. Policy approval will be through Technical Committee.

Priority Explanation

Enter the appropriate priority in the box on the first page of the document.

Priority 1 Upon posting, this impacts all projects in construction and design with a Change Order, Addenda, and immediate change to projects being advertised.

Priority 2 Upon posting, this impacts projects being advertised.

Priority 3 Upon posting, the approved standard takes effect **four weeks** later for projects being advertised.

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 1	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

Review Comments Form

Item No.	Reviewer	Sheet/Section No.	Comment	Review Mtg. Action	Final Action.
1a	Anne Ogden (email)	00727M and 08-6	IM. Will review. In both the Policy and Supplemental, the word "identification" could be added after "branding." This wording makes more sense to me and it helps the new documents be more consistent with the existing Memorandum.		
			Response: This has been added. One place in the supp and three in the policy to include the title.		Added.
1b	Anne Ogden (email)	00727M and 08-6	In the Supplemental, the word "consultant" should be added to be consistent with the Policy & Memorandum wording.		
			Response: Added, but then after discussion with Robert Miles removed the added wording. Specifications are written to the contractor so adding "consultant" to a specification has no binding impact.		Rejected.
1c	Anne Ogden (email)	00727M	In the Supplemental, is the wording "prior written approval of the Engineer" correct? It reads a little weird to me, but I can see how it could work. Could "of" be changed to "from" and have it still be correct?		
			Response: The current spec book uses from, of, and by as well as other combinations. I'm good with it as is. Later update, the wording addressing prior written approval was removed as no longer being an option.		Updated.
1d	Anne Ogden (email)	08-6	In the Policy, it's not defined WHO can give the "Department" written approval. The Supplemental says the Engineer gives approval to the contractor, but the Policy should define who in UDOT can give the Engineer the approval to do so.		
			Response: The wording for approval was removed from the change.		Updated.
1e	Anne Ogden (email)	08-6	In the Policy, nothing is defined as to when or why approval would ever be given. Should that be defined in the Policy?		
			Response: The wording for approval was removed from the change.		Updated.
1f	Anne Ogden (email)	00727M and 08-6	Does "Consultant and Corporate logos or branding identification" refer to only private-sector companies? If so, is that intuitive or easily inferred? Does it need to be defined further?		
			Response: Asked Anne if there is any other option. She said that answered her question.		None

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 2	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

1g	Anne Ogden (email)	Consultant Services Memo (a reference item only in the package)	<p>The list at the end of the Memorandum is confusing to me. Are those places/documents where logos can't be used? The title of the list doesn't really explain WHAT the list is. Also, does this list need to be included in the Policy, or does the phrase "any project deliverable" make that unnecessary?</p> <p>Second update from Anne following Gaye's reply. After reading the memo and reading the list, I had pretty much assumed/inferred that it was a list of project deliverables on which logos or branding identifications could not be displayed. I made the comment listed below because the title of the list ("Restrictions on Consultant/Contractor Logos or Branding"), in my opinion, is slightly confusing. To me, it doesn't clearly define the items as "project deliverables" on which logos are not allowed, although I realize that was the intent of including the list. Also, based on your comment that some consultants may not consider some of those items to be "project deliverables", I still wonder if all or part of the list should be included in the policy and/or supplemental to define that these items are, in fact, considered to be some types of "project deliverables" to which the restrictions apply.</p>		
			<p>Response: Updating the memo is not part of the proposed change for a Supplemental Specification and new policy. Contact has been made with Gaye Hettrick for consideration and possible update of the memo. Gaye sent the following to Anne in response. "On the Consultant Services memo we list out the items where we restrict use of the logo because some consultants may not consider some of the items "project deliverables". In addition, consultants may still, in text form, identify in appropriate places in a project deliverable document who produced the document." Verbally Gaye indicated they were not planning on updating the memo.</p> <p>Response to second comment: With the updated changes to the specification and policy I think that we are good to go. I think I see the point that Anne is commenting on, but to date it has not proven to be a concern with consultants.</p>		Consultant Services item. None

2	Anthony Sarhan (email)		Left phone message 8/6. We have reviewed the submittal and concur with the draft as submitted.		
			Response: No action required.		None.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 3	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

3	Betty Purdie (email)		On vacation when follow up done. See comments from Ken Talbot, item 15 below.		
			Response: No action required.		None.

4	Brad Humphreys (email)	00727M	Left phone message 8/5. From the information that was sent I did not see any benefit in changing the current standard. To assume that it is a distraction therefore a safety issue is not backed up with any data. I think if safety is the concern we should have some way to quantify the benefit. To define or limit the use of logos on construction projects may be prudent and necessary in order to eliminate confusion. On the other hand if the public knows who is constructing the project it may encourage the contractor to increase their focus on quality. Some more discussion on this may be warranted.		
			Response: No update made or rejected as yet. If addressed or questioned in the Standards Committee meeting we will update as needed.		Open.

5	Brent Schvaneveldt (email)		No comment reply by e-mail.		
			Response: No action required.		None.

6	Darin Duersch (email)	00727M and 08-6	Talked. Will review. Phone reply. He said this is a great idea and that this will help bring the situation back under control.		
			Response: Followed up by phone but no comment received. Followed up to that with an email. Robert called to get a reply. No action required.		None.

7	Doug Bassett (email)		Left phone message 8/5. I have no comments on any of the documents		
			Response: No action required.		None.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 4	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

8	Fred Doebling (email)	00727M and 08-6	Left phone message 8/5 and follow up email 8/6. This is a step in the right direction but I'm not sure it will achieve what we are after. On I-80 the contractors attached banners to the first bridge that we moved. They were then directed that they couldn't attach them to our bridge (the final deliverable) so they attached the banners to the chains that were holding the bridge onto the SPMT. This actually was a worse situation because it blocked our view under the bridge.		
			Perhaps we need a second paragraph that states something to the effect that the contractor may only have permanently attached identification on their vehicles and equipment. This would still allow them to paint their trucks, etc. but wouldn't allow banners.		
			Response: Robert Miles discussed with Ken Connaughton and Carlos Bracerias. Wording "Logos or branding identification on contractor owned vehicles, equipment, and apparel not prohibited" added to policy and specification draft.		Updated.
9	Gaye Hettrick (email)	00727M and 08-6	I would comment that nothing has changed for consultants. This is directed at contractors. The memo online worked for consultants. A memo is insufficient to enforce it with contractors. That's why it was decided to put it in the specs.		
			Response: No action required.		None.
10	Glenn Schulte (email)		Talked. Will review. Didn't think it was related to his area and to check with Eric Cheng. Still was going to review and provide comments. No comments received.		
			Response: No action required.		None.
11	Greg Searle (email)	00727M and 08-6	Left phone message 8/5. Greg provided one comment based on the input from Fred Doebling. In Supplemental Specification 00727M Greg suggested adding the phrase "or within the limits of the project except on contractor owned vehicles, equipment, and personnel" between "project deliverable" and "without prior."		
			Response: Refer to response for item 8.		Updated.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 5	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

12	Jim McConnell (email)	00727M and 08-6	Left phone message 8/5. Looks good to me. I would assume that this wouldn't pertain to the contractors name/logo on their owned equipment such as a crane boom or something similar.		
			Response: No action required. Advised Jim that his assumption is correct. Trucks and other vehicles have company info on them so that is not a problem. Based on additional comments this was addressed in both the specification and policy.		Updated.
13	John Leonard (email)		Talked. Will review. No comments received after follow up.		
			Response: No action required.		None.
14	Kelly Barrett (email)		Talked. Will review. Followed up on 8/7 with email. Opened but still no response.		
			Response: No action required.		None.
15	Ken Talbot (email. Instant Message follow up.)	00727M and 08-6	Contact by IM. Ken said he had talked to Betty Purdie about it and she did say she had some concerns that the language in there would restrict contractors from placing their logos on their equipment and traffic control items and things like that, which didn't seem to be the intent of the policy. He said she is on vacation now. I think the wording should be adjusted so that the requirement is not so stringent. But there is already language in there that allows for the Engineer to approve it, but it is just another hoop to jump through. I assume that the policy is because of the large banners that were hanging from the bridge moves on 4500 south and such. Maybe the language should be more specific toward that.		
			Response: Refer to response for item 1d and 8 above.		Updated.
16	Kris Peterson (email)		Left phone message 8/5. Sent email follow up 8/7. Robert talked to Kris and got verbal confirmation that he is okay with the proposed changes.		
			Response: Talked to Kris on 8/11. He is working on a response. Asked him to coordinate with Pete Negus and Stan Adams. He advised Stan is on vacation. Robert updated Kris on the modifications based on approval and vehicle, equipment, and apparel use. No action required.		None.
17	Lisa Wilson (email)		I have reviewed this information and I don't see any issues with it.		
			Response: No action required.		None.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 6	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

18	Mike Donovan (email)		Did not call. Glenn is reviewing and indicated not their area. John Leonard said not part of the logo program they are responsible for so he will review.		
			Response: No action required.		None.

19a	Mike Miles (email)	00727M and 08-6	What would be the reason an engineer would approve the placement of a logo on a deliverable?		
			Response: From Robert Miles - This was included to give our crews the opportunity to include plaques that commemorate partnering efforts if we want to. Point being that it would be our decision when, where and what. E-mail response sent to Mike by Robert. Following review of other comments the requirement for approval was removed from the policy and specification.		Updated.

19b	Mike Miles (email)	00727M and 08-6	It sounds like this change is catered to construction. Is it? or does it still apply to the design deliverables as well?		
			Response: From Robert Miles - This is completely catered to construction. Preconstruction activities are already covered buy an existing memo. E-mail response sent to Mike by Robert.		None.

19c	Mike Miles (email)	00727M and 08-6	Can I now approve the use of a logo on a design package? or individual design sheets?		
			Response: From Robert Miles - No. Please see previous question and memo from Gaye Hettrick on consultant services website. E-mail response sent to Mike by Robert.		None.

19d	Mike Miles (email)	00727M and 08-6	Why do we need this spec anyway? If we hired someone to do a job for us, why not let them say that they did the work?		
			Response: From Robert Miles - There are a couple of concerns. We have concern about providing free advertisement to contractors. There is a concern about safety, and not wanting to provide any additional distractions to motorists. With the aggressive schedules we consistently run we have heard of contractors claiming to own products that are not finished. We definitely don't want people to hang signs with messages we don' agree with. E-mail response sent to Mike by Robert.		Updated.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	00727M and Policy 08-6	Sheet 7	of	8
Date:	August 13, 2008	Facilitator:	Barry Axelrod	

20	Mont Wilson (email. Phone.)	00727M and 08-6	Followed up by phone. He said he sent it out by had not heard anything back yet. Will bring it up at a meeting later today (8/5) and advise if there are any comments. If no contact back I can assume they are good with the change. Called with question (8/6). Can logos be used on Design - Bid submittals?		
			Response: Don't see a problem with that. It is the same as a Consultant RFP/RFQ submittal. The submittal is spot lighting the company in for to get a contract. Following the discussion Mont indicated they were fine with the recommendation.		None.

21	Pete Negus (email)		Left phone message 8/5. Sent email follow up 8/7.		
			Response: See item 16 response above.		None.

22	Rex Harris (email. Instant Message follow up.)		I believe the Spec and Policy are ok as written.		
			Response: No action required.		None.

23	Richard Clarke (email)		No problem with any of these.		
			Response: No action required.		None.

24	Richard Miller (email)	00727M and 08-6	Left phone message 8/5. In the Policy it states: "without prior Department written approval" and the Special Provision states: "without prior written approval of the Engineer". These could be two different individuals (Department-Assistant Director and Engineer-Resident Engineer). Is there any instance where the Engineer would give approval? I would suggest a period after deliverable and delete the rest of the sentence.		
			Response: This suggested change was incorporated.		Updated.

25	Rob Wight (email)		Left phone message 8/5. Replied with no comment.		
			Response: No action required.		None.

26	Robert Dowell (email)		Left phone message 8/5. I have no comments.		
			Response: No action required.		None.

27	Robert Westover (email)		No comment reply by e-mail.		
			Response: No action required.		None.

28	Scott Andrus (email)		No problems with the proposed modification or policy.		
			Response: No action required.		None.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet			Review Comments		
Std Dwg/Spec Number	00727M and Policy 08-6		Sheet 8	of	8
Date:	August 13, 2008		Facilitator:	Barry Axelrod	

29	Stan Adams (email)		Left phone message 8/5. Sent email follow up 8/7.		
			Response: See item 16 response above. On vacation.		None.

30	Steve Ogden (email. Instant Message follow up.)		Contacted by IM. Steve said the policy and spec seem reasonable to me.		
			Response: No action required.		None.

31a	Troy Torgersen (email)	08-6	Left phone message 8/5. Policy 08-6. The purpose discusses establishing guidance and requirements for addressing etc. but in the Policy it is very brief. They don't match. I would expect to see more information related to how a consultant goes about requesting the branding of the project. Who is responsible for the review and processing of the request? More information is needed to help the Regions address requests.		
			Response: The requirement for approval was removed from the change.		Updated.

31b	Troy Torgersen (email)	00727M and 08-6	Left phone message 8/5. The supplemental specification requires the "Engineer" to give written approval while the Policy only indicates the Department. Shouldn't they be the same?		
			Response: Refer to 1d above from Anne Ogden.		Updated.

32	Tyler Yorgason (email. Phone.)	00727M and 08-6	Followed up by phone. He said he was going to send an email later in the day, but we discussed it on the phone. He had someone ask if the direction was going to be that any pictures or related information on bridges and roadways for use in company promotional material would be prohibited in the future. To clarify it would be after project completion type advertising material.		
			Response: Advised Tyler that didn't seem to be the intent to prohibit showcasing a project in company literature. If this is not the case additional follow up would be done and he would be advised.		None.

33	Eric Cheng (added late) (email.)		Seems ok to me.		
			Response: No action required.		None.

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate



MEMORANDUM

TO: Consultants/Contractors

FROM: Gaye Hettrick, UDOT Consultant Services Manager

DATE: July 19, 2006

SUBJECT: **USE OF CONSULTANT AND/OR CORPORATE LOGOS OR BRANDING IDENTIFICATION IN UDOT OWNED DOCUMENTS OR PRODUCTS FOR ANY PUBLIC PURPOSE**

Consultant and/or Corporate logos or branding identification may no longer be displayed in public documents/products produced for UDOT beginning July 1, 2005. It is our intent that consultants should place identifying information, in text format, in appropriate places in documents. For specific questions or further guidance please contact Gaye Hettrick, Consultant Services Manager, (801) 965-4639 or ghettrick@utah.gov.

Restrictions on Consultant/Contractor Logos or Branding

- Plan Sheets or Title Blocks.
- Environmental Documents.
- Standard UDOT Forms.
- Project Websites.
- Cover Pages.
- Headers/Footers.
- Information and Display Boards for Public Meetings.

Supplemental Specification
2008 Standard Specification Book

SECTION 00727M

CONTROL OF WORK

Add the following to Part 1, Article 1.10:

- E. Do not use or attach permanent or temporary ~~consultant or~~ contractor logos or branding identification on any project deliverable, ~~without prior written approval of the Engineer.~~
- ~~1. Logos or branding identification on contractor owned vehicles, equipment, and apparel not prohibited. (This item added then modified based on comments and follow up. Changed to the below.)~~
1. Logos or branding identification other than those permanently attached to vehicles, equipment, and apparel are prohibited.

Use of Corporate Logos or Branding Identification

Effective: August 28, 2008

UDOT 08-6

Revised: new

Purpose

~~Prohibit~~ Establish guidance and requirements for addressing the use of corporate logos or branding identification on Utah Department of Transportation (UDOT) owned structures, facilities, documents, or products for any public purpose.

Policy

Consultant or Contractor logos or branding identification will not be used on any project deliverable. ~~without prior Department written approval.~~

~~Logos or branding identification on contractor owned vehicles, equipment, and apparel not prohibited. (This item added then modified based on comments and follow up. Changed to the below.)~~

Logos or branding identification other than those permanently attached to vehicles, equipment, and apparel are prohibited.

Standards Committee Submittal Sheet

Name of preparer: John Butterfield and Bryan Lee

Title/Position of preparer: Region 2 Materials Engineer

Specification/Drawing/Item Title: Portland Cement Concrete

Specification/Drawing Number: 03055

Enter appropriate priority level:

(See last page for explanation) 3

Sheet not required on editorial or minor changes to standards. Check with Standards Section.

NOTES:

1. All Submittal Sheets must be completed and sent to the Standards Section by the Standards Committee suspense date as shown on the Web.
(<http://www.udot.utah.gov/go/standardscommittee>)
2. The Preparer of the Submittal Sheet or the Standards Committee member (or authorized substitute) responsible for the submittal must be present at the Standards Committee meeting and capable of discussing and answering all questions related to the submittal. The item will be postponed to a later meeting if one of these people is not present.
3. Notify the Standards Section immediately of any changes that impact the presentation to include absence of sponsor or delay in presentation.

Complete the following: (Use additional pages as needed.)

- A. Why? Detail the reason for changing the Standard (Specification or Drawing), what has initiated a new Standard, or what has caused a new or changed item of interest.
- Clarifications of mix design submittal and approval process, including quality assurance requirements for testing personnel and laboratories.
 - Corrections of typographical errors, grammatical errors, and incorrect table references.
 - Addition of hot and cold weather limitations inadvertently left out of the 2008 standard. The added limitations are similar limitations already specified in the 2008 standard 02752 PCC Pavements, but necessary in 03055 to cover items other than pavements.
- B. Measurement, Payment, Acceptance, and Documentation:
1. How is Measurement and Payment handled? Existing (from the measurement and payment document), modified, or new measurement and payment to be included with all Standard Specifications or Supplemental Specifications.

Existing.

2. How is Acceptance and Documentation handled? Existing (from the acceptance and documentation document), modified, or new acceptance and documentation to be included with all Standard Specifications or Supplemental Specifications. Include Contractor Submittals, Inspection Elements, and Documentation.

Existing – in accordance with the Minimum Sampling and Testing Requirements

C. Stakeholder Notification for AGC and ACEC:

By email provide the AGC and ACEC Standards Committee member a copy of all pertinent information relating to the specification or drawing. Detail all responses below. Indicate if no comments were received.

Note: There is a two-week response time set for this item.

Refer to the Standards Committee Web site, Members page at <http://www.udot.utah.gov/main/f?p=100:pg::::1:T,V:659> for the respective e-mail addresses.

AGC Comments: (Use as much space as necessary.)

See Comments form.

ACEC Comments: (Use as much space as necessary.)

See Comments Form.

- D. Stakeholders? From the list provided, document the stakeholders contacted, detailing: the company, name of contact, how contacted (by phone, email, hard copy, or in person), concerns, and comments of the change. Stakeholders:

Note: There is a two-week response time set for this item. Allow Stakeholders two weeks to process and respond to coordination requests. All areas should try to complete review and comment as soon as possible but within two weeks.

In-house (for example, preconstruction, materials, construction, safety, design, maintenance) (Include all applicable in-house areas even if not listed above.)

Construction Engineers

See Comments Form.

Contractors (Any additional contacts beyond “C” above.)

See Comments Form.

Suppliers

See Comments Form.

Consultants (as required) (Any additional contacts beyond “C” above.)

FHWA (To be accomplished as part of the two-week process before submitting to the Standards for inclusion on the Standards Committee agenda.) (This is in addition to the requirements of UDOT Policy 08A5-1, procedure 08A5-1.3.)

See Comments

Others (as appropriate)

E. Other impacted areas, systems, or personnel. (Consider all impacts and possible changes to these areas during the preparation process. Coordinate with all appropriate areas for the respective item. List all impacts and action taken.)

1. Minimum Sampling and Testing Requirements

Not impacted

2. Business Systems (Electronic Bid System, Project Development Business System, Electronic Program Management, Computer-Aided Drafting and Design, etc.)

Not impacted

3. Implementation Plan (Provide detailed instructions on how the subject item will be implemented to include notification of all interested parties and training requirements.)

All interested parties (AGC, RME's, Construction, Pavement Council) will be contacted upon approval.

F. Costs? (Estimates are acceptable.)

1. Additional costs to average bid item price.

None.

2. Operational (For example, maintenance, materials, equipment, labor, administrative, programming).

3. Life cycle cost.

- G. Benefits? (Provide details that can be used to complete a Cost – Benefit Analysis.) (Estimates are acceptable.) (If no costs, what is the benefit of making this change?)

Benefits of the change are to clarify the language of the specification and to address issues such as extreme weather conditions that were not previously included.

- H. Safety Impacts?

None.

- I. History? Address issues relating to the current usage of the item and past reviews, approvals, and/or disapprovals.

Previous version was approved for the 2008 Standard Specifications. This supplemental clarifies language, corrects references and grammar, and adds hot/cold weather limitations inadvertently excluded from the 2008 standard but drawn from standard 02752 which was approved in the 2008 Standard Specifications.

Priority Explanation

Enter the appropriate priority in the box on the first page of the document.

- | | |
|------------|---|
| Priority 1 | Upon posting, this impacts all projects in construction and design with a Change Order, Addenda, and immediate change to projects being advertised. |
| Priority 2 | Upon posting, this impacts projects being advertised. |
| Priority 3 | Upon posting, the approved standard takes effect four weeks later for projects being advertised. |

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	03055	Sheet 1	of	3
Date:	8/12/08	Facilitator:	John Butterfield	

Review Comments Form

Item No.	Reviewer	Sheet/Section No.	Comment	Review Mtg. Action	Final Action.
1	Tyler Yorgason ACEC	3.4 D and E	The Standards Committee Submittal Sheet noted that one of the changes was to add hot and cold weather limitations, similar to those found in the 02752 PCCP specification. While, there could be specific reasons I am unaware of to have them in both places, it may be preferable to not only make the proposed change to the 03055 spec. but to also remove the duplicate limitations from the 02752 spec. This would eliminate the need to maintain the same information in different specifications and leave only limitations specific to PCCP in the 02752 spec.		
			There was also one other little detail in the 03055 Supplemental you have probably already corrected - the date in the footer has a stray "6" in it.		
			Response: Hot and cold weather limitations most appropriately belong in 03055 as added. Needed here to cover all items, curb and gutter, etc. Will review limitations as currently included in 02752.		
			Footer was corrected.		
2	Nick Peterson UDOT Field Engineer	1.5.A.1	1.5.A.1. has been confusing to our contractors. They think that breaks within the year should be all they need to verify strengths. However, we are requiring new trial batches each year. The spec. to me seems like it states that they should be able to use past history within the year. Am I reading this incorrectly. Should we modify to make it more clear?		
			Response: Mix designs will be approved based on results of trial batches or on <u>history from a UDOT project within the last year.</u>		
3	Todd Laker, Holcim	2.2 C2	As we discussed on the phone this morning, I would suggest deleting the change made to section 2.2 Cement, C. 2. The original language clearly states that 30 percent pozzolan shall not be exceeded and that pozzolan from a blended cement and pozzolan added to a blended cement are to be considered the total pozzolan percentage. The proposed change may cause confusion in regard to the addition of flyash in concrete mixtures utilizing blended cements.		
			Response: Intent of the new language was the same. Language returned to original.		

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet

Review Comments

Std Dwg/Spec Number	03055	Sheet 2	of	3
Date:	8/12/08	Facilitator:	John Butterfield	

4	Doug Akin, Anthony Sarhan, FHWA		1) 1.5.A.1 - Suggest clarifying as "calendar year" 2) 1.5.A.2 - Are the 2nd and 3rd sentences necessary, or do they belong in this section? 3) 1.5.A.3 - What about ACI certification? 4) Table 1 - 5th column references "Article G". Should be Article H 5) 2.2.A - Why the use of ASTM C 150 instead of AASHTO M85? 6) 2.2.F - Different is capitalized 7) 3.4.A - What about placement when air temperature is over 90 F. 8) 3.4.E - What is definition of Hot Weather for the purposes of this article?		
			Response: 1) Year and "calendar year" are the same thing. 2) Language is necessary to eliminate confusion. Recommend text remains. 3) ACI qualification does not stand alone. A crossover qualification is allowed with ACI, but it requires submittal of proof of qualification after which TTQP qualifications are issued. 4) Corrected. 5) Cement producers provide product according to C150. Differences in the specs exist. 6) Corrected. 7) 3.4.A discusses timing of placement. Changed language to read "60 minute placement above 85 °F" 8) ACI 305 1.2 defines hot weather, but for the purposes of this specification, the references to hot weather conditions and the remedies are specific and need not be further defined.		

5	Scott Nussbaum, Region 1 Materials Engineer		1.5 B, C, and D reference the wrong sections in the same specification. Instead of 2.2, 2.1, and 2.5, it should be 2.3, 2.1, and 2.6.		
			Response: Corrected		

6	Larry Gay		I concur with all changes and upgrades		
			Response: No change		

7	Larry Myers		No concerns.		
			Response: No Change		

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Standard Drawing/Specification Review Sheet			Review Comments		
Std Dwg/Spec Number	03055		Sheet 3	of	3
Date:	8/12/08		Facilitator:	John Butterfield	

8	Fred Doehring, Structures		I have no concerns at this time.		
			Response: No Change		

9	Mont Wilson, AGC		No concerns.		
			Response: No Change		

10	Kris Peterson, UDOT Construction	1.5 A	Suggest adding : “Furnish to the Resident Engineer and <i>forward to</i> the Region Materials Engineer. “ Important to have just one point of acceptance.		
			Response: Due to resident engineers’ frequent inexperience with mix designs, it is critical that the RME’s review the design before the RE accepts. Believe new language establishes that.		

11	Clark Mackay	Full Document	Numerous grammatical corrections		
			Response: Corrected as appropriate		

12	James Cox R3 Materials Engineer	Full Document	No Concerns		
			Response: No change		

13	Jerry Hall Geneva Rock	Full Document	Email and Phone contacts		
			Response: No response		

14	Doug Johnson Ashgrove	Full Document	Contacted – No concerns at this time.		
			Response: No change		

15	Ben Blakenship Ashgrove Cement	Full Document	Contacted – No concerns at this time.		
			Response: No Change		

16	Barry Sharp Research	Full Document	Contacted – No concerns at this time.		
			Response: No change		

17	Deryl Meyhew Resident Engineer	Full Document	Contacted – No concerns at this time.		
			Response: No Change		

Action Code	A	B	C	D
	Submitter will Comply	Submitter to Evaluate	Delete Comment	Others to Evaluate

Supplemental Specification
2008 Standard Specification Book

SECTION 03055

PORTLAND CEMENT CONCRETE

Delete Section 03055 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Materials and procedures for producing portland cement concrete.

1.2 RELATED SECTIONS Not Used

1.3 REFERENCES

- A. AASHTO M 6: Standard Specification for Fine Aggregate for Portland Cement Concrete
- B. AASHTO M 80: Standard Specification for Coarse Aggregate for Portland Cement Concrete
- C. AASHTO M 154: Standard Specification for Air-Entraining Admixtures for Concrete
- D. AASHTO M 157: Standard Specification for Ready-Mixed Concrete
- E. AASHTO M 194: Standard Specification for Chemical Admixtures for Concrete
- F. AASHTO M 295: Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete

G. [AASHTO T 325: Estimating the Strength of Concrete in Transportation Construction by Maturity Tests](#)

H. ASTM C 150: Standard Specification for Portland Cement

I. ASTM C 595: Standard Specification for Blended Hydraulic Cements

J. ASTM C 1157: Standard Performance Specification for Hydraulic Cement

- KJ. ASTM C 1240: Standard Specification for Silica Fume for Used in Cementitious Mixtures
- LK. ASTM C 1567: Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method)
- ML. ASTM C 1602: Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
- NM. American Concrete Institute (ACI) Standards
- ON. Precast/Prestressed Concrete Institute (PCI)
- PQ. UDOT Materials Manual of Instruction
- QP. UDOT Minimum Sampling and Testing Requirements Manual
- RQ. UDOT Quality Management Plan

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS

- A. Furnish to the Resident Engineer and Region Materials Engineer a mix design for each class of concrete to be used.
 - 1. Mix designs will be approved based on results of trial batches or on history from UDOT project within the last year. Base concrete mix designs for all "A" concrete classes on trial batch test results or on UDOT's past project history using the same materials used in previous mix designs within the past year.
 - 2. Use the same components in the trial batches that are to be used in the project. Accelerators and site-added air-entrainment can be incorporated in the trial batch but are not required. The Contractor assumes responsibility for the compatibility of these admixtures with the mix design and their potential effects on concrete properties..including coarse and fine aggregate, water, source and type of cement, air-entraining agent, fly ash, etc., including any site-added admixtures intended to be used.
 - 3. Do not exceed 30 percent total pozzolan in any mix unless otherwise specified. Personnel performing and witnessing trial batches, and performing compressive and flexural strength testing must be UDOT TTQP Concrete and Concrete Strength Testing qualified.
 - 4. The Department or its representative may witness the trial batch.

5. Mix concrete trial batches as specified in UDOT Materials Manual of Instruction Part 8-974: Guidelines for Portland Cement Concrete Mix Design.
 6. Compressive and flexural strength testing for verification of trial batches will be performed by an AASHTO accredited laboratory, approved through the UDOT Laboratory Qualification Program.
 7. Meet the following additional requirements for Self Consolidating Mixes (SCC):
 - a. Design and mix according to ACI Manual of Concrete Practice 301: Specifications for Concrete.
 - b. Provide mix specific flow and spread criteria.
 - c. Meet PCI – TR-6-03. A visual stability index rating of 0 – 1 is required.
 - d. Provide compressive strength data.
 - e. Include documentation justifying any deviation from the aggregate operating bands required by Table 4 with the mix design for approval. Production may not begin until the deviation is approved.
- B. Provide tTest results verifying the coarse and fine aggregate used meets this section, article 2.32
- C. Submit vVerification that cement used is from a pre-qualified supplier. See this Section, article 2.24, paragraph E.
- D. Submit vVerification that fly ash or other pozzolan used isn from a pre-qualified supplier. See this Section, article 2.65, paragraph A.1.d.
- E. E. Submit vVerification that the batch plant meets the requirements of the UDOT Quality Management Plan for Ready-Mix Concrete.
- F. Submit cold and/or hot weather plans as required in Article 3.4. Limitations.

1.6 ACCEPTANCE

- A. Acceptance is in accordance with UDOT Minimum Sampling and Testing Requirements.
- B. When concrete is below specified strength and does not have a separate strength pay factor:
 1. Department may accept item at a reduced price.
 2. The pay factor will be applied to the portion of the item that is represented by the strength tests that fall below a specified strength.

3. Department will calculate the pay factor as follows based on 28 day compressive strength:

Psi below specified strength: Pay Factor:

1 – 100 0.95

101 – 200 0.90

201 – 300 0.85

301 – 400 0.80

More than 400 ~~0.50 or Engineer may Reject~~

4. The Engineer may accept a “reject” lot based on an engineering analysis and concurrence from the Region Materials Engineer. If a reject lot is allowed to remain in-place, apply a pay factor of 0.50.

PART 2 PRODUCTS

2.1 CONCRETE CLASSES AND MIX REQUIREMENTS

- A. Meet the requirements in Table 1.

Table 1

Concrete Classes and Mix Requirements							
Class	Coarse Aggregate or Sieve Size	Max. Water/Cementitious Ratio	Min. Cementitious Content (lb/yd ³)	Slump (Inch) See Article G H for further Criteria	Air Content Percent (%) [*]	Mix Design Compress f _c (Psi)	28 Day Minimum Compress f _c (Psi) ^{**}
AA(AE)	2" to No. 4	0.44	564	1 to 3.5	4.0 - 7.0	5200	4000
	1-½" to No. 4	0.44	564	1 to 3.5	4.5 - 7.5	5200	4000
	1" to No. 4	0.44	611	1 to 3.5	5.0 - 7.5	5200	4000
	¾" to No. 4	0.44	611	1 to 3.5	5.0 - 7.5	5200	4000
A(AE)	1-½" to No. 4	0.53	470	1 to 3.5	4.5 - 7.5	3900	3000
	1" to No. 4	0.53	470	1 to 3.5	4.5 - 7.5	3900	3000
	¾" to No. 4	0.48	517	1 to 3.5	4.5 - 7.5	3900	3000
B or B(AE)		0.62	376	2 to 5	-- 3.0 - 6.0	3250	2500

* Values listed represent in-place air content. Make necessary adjustments for impacts to air content due to placement.

** For ~~f~~_c over 4000 psi, design and proportion mixes according to ACI Manual of Concrete Practice 301: Specifications for Concrete and project specific criteria.

- B. Minimum strength is based on a coefficient of variation of 10 percent, and one test below the minimum strength per 100 tests.

- C. Maximum nominal size of coarse aggregate:

Portland Cement Concrete

03055 – Page 4 of 120

~~January 1~~ ~~June~~ ~~August 28~~ ~~May 6~~ ~~20~~, 2008

1. Not larger than $\frac{1}{5}$ of the narrowest dimension between sides of forms.
2. Not larger than $\frac{1}{3}$ the depth of slabs.
3. Not larger than $\frac{3}{4}$ of the minimum clear distance between reinforcing bars or between bars and forms, whichever is less.

D. Do not exceed water/cementitious ratio.

E. Calculate the water/cementitious ratio (w/c) according to the following formula:

$$\frac{W}{C} = \frac{\text{Water}}{\text{Cement} + \text{Pozzolan}}$$

F. Do not exceed 30 percent total pozzolan in any mix unless otherwise specified.

GF. Use 94 lb additional ~~more~~ cementitious material per cubic yard when concrete is deposited in water than the design requires for concrete placed above water.

HG. Use Table 4-1 to determine the slump requirements when not using water-reducing admixtures or viscosity modifying admixtures.

1. Slump requirements when using low range water reducers: 1 inch to 5 inches for all classes of concrete.
2. Slump requirements when using high Range water reducers: 4 inches to 9 inches for all classes of concrete.
3. Slump requirements when using viscosity modifying admixtures: None. Meet visual stability index of 0 – 1.

2.2 CEMENT

A. Use type II portland cement or blended hydraulic cement unless otherwise specified. (ASTM C 150, ASTM C 595, ASTM C 1157)

B. Portland Cement

1. Follow Tables 1 and 3 in ASTM C 150.
2. Follow the requirements of Table 2 of ASTM C 150 for low-alkali cement.

C. Blended Hydraulic Cement.

1. When blended hydraulic cement is substituted for portland cement:
 - a. Use ASTM C 1567 to verify that expansion is less than 0.1 percent at 16 days.

- b. Refer to the equivalent cements listed in Table 2.
2. Do not exceed 30 percent total pozzolan limit when adding flyash to a blended hydraulic cement. ~~in a blended cement.~~
 - a. Submit documentation of the total pozzolan content with the mix design.

Table 2

Portland Cement/Blended Hydraulic Cement Equivalencies		
ASTM C 150 (Low Alkali)	ASTM C 595	ASTM C 1157
Type I	IP	GU
Type II	IP (MS)	MS
Type III	-	HE
Type V	-	HS

- D. Do not use cement that contains lumps or is partially set.
- E. Use cement from the list of UDOT qualified suppliers list maintained by the UDOT Materials Quality Assurance Section.
- F. Do not mix cement originating from ~~Different-different~~ sources.
- G. Do not use air-entrained cement.
- H. Department will sample and test the cement in accordance with UDOT Quality Management Plan 502: Cement.

2.3 AGGREGATE

- A. Coarse Aggregate for Normal Concrete Mixes
 1. Use coarse aggregate meeting AASHTO M 80 physical properties. Use one of the gradations found in Table ~~32~~.
 2. Do not exceed 1 percent of deleterious substances as shown in AASHTO M 80, Table 2, for Class A aggregates. Material finer than No. 200 sieve: maximum allowable 1 percent, exception as noted in footnote d.

Table 3

Aggregate Gradations - Percent Passing (by weight)								
Aggregate or Sieve Size (inches)	2½	2	1½	1	¾	½	⅜	No. 4
2 to No. 4	100	95-100		35-70		10-30		0-5
1½ to No. 4		100	95-100		35-70		10-30	0-5

1 to No. 4			100	95-100		25-60		0-10
¾ to No. 4				100	90-100		20-55	0-10

- B. Fine Aggregate for Normal Concrete Mixes
1. Use fine aggregate meeting AASHTO M 6 physical properties. Use the gradation found in Table 43.
 2. Do not exceed 3.0 percent of deleterious substances as outlined in AASHTO M 6, Table 2, for class A aggregates, using option “b” for material finer than the No. 200 sieve. Material finer than No. 200 sieve: maximum allowable 3 percent.

Table 4

Gradation	
Sieve Size	Percent Passing (by weight)
¾ inch	100
No. 4	95 to 100
No. 16	45 to 80
No. 50	10 to 30
No. 100	2 to 10

- C. Coarse and Fine Aggregate for Self Consolidating Concrete (SCC) Mixes.
1. Combined gradations of coarse and fine aggregates must be within the bands shown in Table 54. Establish targets and production tolerances necessary to meet the requirements of Table 45.

Table 5

Aggregate Gradations (Percent Passing by Dry Weight of Aggregate)		
Sieve Size	¾ inch Operating Bands	½ inch Operating Bands
¾ inch	95 – 100	–
½ inch	65 – 95	95 – 100
¾ inch	58 – 83	65 – 95
No. 4	35 – 65	50 – 80
No. 8	25 – 50	30 – 60
No. 16	15 – 35	20 – 45
No. 30	10 – 35	12 – 35
No. 50	5 – 20	5 – 20
No. 100	1 – 12	2 – 12
No. 200	0 – 2	0 – 2

2.4 WATER

- A. Use potable water or water meeting ASTM C 1602, including Table 2.

- B. Screen out extraneous material when pumping water from streams, ponds, lakes, etc.

2.5 ADMIXTURES

- A. Air Entrainment: as specified. Meet AASHTO M 154, including Section 5.
- B. Water Reducing Agents: Meet AASHTO M 194.
 - 1. High Range Water Reducer (HRWR): Submit a written plan for approval with the trial batch that shows proper attention will be given to ingredients, production methods, handling and placing.
 - 2. Do not use calcium chloride.
- C. Accelerators: Meet AASHTO M 194
 - 1. Use non-chloride accelerators.
- D. Set Retarding Admixtures: Meet AASHTO M 194.
 - 1. Establish the effective life of the set-retarding admixture by trial batch if set retarding admixtures are required due to haul times exceeding the time limitations in this Section, article 3.4, paragraph A.
 - 2. Do not exceed any manufacturer recommendations for the use of the set-retarding admixture.
 - 3. Do not re-dose the concrete with additional set retarding admixture.
 - 4. Add set-retarding admixture at the batch plant at the time of initial batching operations.
 - 5. Show on batch tickets the amount of admixture used.
 - 6. Time of placement is established by the trial batch and supersedes the requirements in this Section, article 3.4, paragraph A.
- E. Viscosity Modifying Admixtures (for Self-Compacting Concrete)-
 - 1. Do not exceed any manufacturer recommendations for the use of the viscosity modifying admixture.
 - 2. Do not re-dose the concrete with additional viscosity modifying admixture.
 - 3. Show on batch tickets the amount of admixture used.
- F. Site-added air-entrainment admixtures. (Meet AASHTO M 154)
 - 1. Limit the use of site-added air-entraining agents to one addition (regardless of quantity) per load
 - 2. Use pre-measured admixtures only.
 - 3. Record amount used on batch ticket.
 - 4. Rotate the drum at least 30 revolutions at the mixing speed recommended by the manufacturer.

2.6 POZZOLAN

- A. Fly Ash:
 - 1. Class F, as specified. Conform to AASHTO M 295 except table 2.
 - a. Replace a minimum of 20 percent of the ~~P~~portland cement by weight unless otherwise specified. Use the minimum cement content in the design formulas before replacement is made.
 - b. Loss on Ignition (LOI): not to exceed 3 percent.
 - c. Maximum allowable CaO content: not to exceed 15 percent.
 - d. Use fly ash from the list of UDOT pre-qualified sources maintained by the UDOT Materials Quality Assurance.
 - e. Label the storage silo for fly ash to distinguish it from cement.
 - f. Use different size unloading hoses and fittings for cement and fly ash.
 - 2. Fly ash may be sampled and tested for compliance at any time.
- B. Natural Pozzolan (Class N)
 - 1. Conform to AASHTO M 295.
 - 2. May use instead of fly ash provided that the expansion, according to ASTM C 1567, does not exceed 0.1 percent.
- C. Silica Fume: Conform to ASTM C 1240.

PART 3 EXECUTION

3.1 PREPARATION

- A. Aggregate stockpiles:
 - 1. Construct stockpile platforms so that subgrades are prevented from intruding into aggregates.
 - 2. Build stockpiles at least two days before use.
 - 3. Provide an operator and front-end loader to help the Engineer take aggregate samples.
 - 4. Aggregate may be accepted in daily increments, but not more than 30 days before use.
 - 5. Provide separate stockpiles for coarse and fine aggregates.
 - 6. Construct stockpiles to minimize segregation of aggregates.
 - 7. Allow washed aggregates to drain to uniform moisture content before use (12 hours minimum).

3.2 BATCH MATERIALS

- A. Meet AASHTO M 157.
- B. Hand Mixing:
 - 1. Only Class B concrete may be hand mixed.
 - 2. Hand-mixed batches cannot exceed 0.5 yd³.
 - 3. Hand mix on a watertight platform.
 - 4. Spread the aggregate evenly on the platform and thoroughly mix in the dry cement until the mixture becomes uniform in color.
- C. Truck-Mixed Concrete (Dry-Batch):
 - 1. Do not load trucks in excess of their rated mixing capacity, or 63 percent of the drum gross volume, or less than 2 yd³.
 - 2. The truck rating plate must be readable.

3.3 MIX DESIGN

- A. Use only concrete mixes that have been approved by the Region Materials Engineer.
- B. Obtain concurrence from the Resident Engineer for the project specific application of an approved mix. ~~Do not place concrete without written approval of the mix design.~~
- CB. Do not change the mix design without written approval.

3.4 LIMITATIONS – GENERAL

- A. Timing. Unless otherwise specified, place concrete:
 - 1. Within 90 minutes of batching when the air temperature is below 80 degrees F.
 - 2. Within 75 minutes of batching when the air temperature is between 80 and 85 degrees F.
 - 3. Within 60 minutes of batching when the air temperature is between above 86-85 and 90 degrees F.
 - 4. Prior to initial set.
- B. Concrete Temperature: Unless otherwise specified, place concrete in the forms when the concrete temperature is between 50 and 90 degrees F.
- C. Pumping and Conveying Equipment
 - 1. Do not use equipment or a combination of equipment and the configuration of that equipment that causes a loss of entrained air content that exceeds one half of the range of air content allowed by specification.
 - 2. Contractor is responsible for verification and monitoring of air loss.

D. Cold Weather: Comply with the following regulations for placing concrete when the temperature is forecast to fall below 40 degrees F within 14 days of placement.

1. Do not use chemical "anti-freeze" additives in the concrete. (Note: This does not apply to normal accelerators.)
2. Provide all necessary cold weather protection for in-place concrete (cover, insulation, heat, etc.)
3. Do not place concrete in contact with frozen surfaces.
4. Adequately vent combustion-type heaters that produce carbon monoxide.
5. Protect the concrete from freezing until a compressive strength of at least 3,500 psi has been achieved, determined by either:
 - a. Maturity method: Refer to AASHTO T 325
 - b. Field cure cylinders
6. Maintain moist conditions for exposed concrete to avoid loss of moisture from the concrete due to heat applied.
7. Limit the drop in temperature next to the concrete surfaces when removing heat to 20 degrees F during any 12-hour period until the surface temperature of the concrete reaches that of the atmosphere.
8. Determine the concrete temperature with a surface thermometer insulated from surrounding air.
9. Paving may begin when base surface temperature is 36 degrees F in the shade and ascending.
10. Cease operations when the ambient temperature is 45 degrees F in the shade and decreasing.
11. Remove and replace concrete damaged by frost action at no additional cost to the Department.
12. Do not use material containing frost or lumps.

E. Hot Weather: Cool all form surfaces that will come in contact with the concrete to below 95 degrees F.

3.5 CYLINDER STORAGE DEVICE

- A. Provide and maintain cylinder storage device.
1. Maintain cylinders at a temperature range of 60 degrees F to 80 degrees F for the initial 16-hour curing period.
 2. Do not move the cylinders during this period.
 3. Equip the storage device with an automatic 24-hour temperature recorder that continuously records on a time-temperature chart with an accuracy of ± 1 degree F.
 4. Have the storage device available at the point of placement at least 24 hours before placement.

5. Engineer stops placement of concrete if the storage device cannot accommodate the required number of test cylinders.
6. Use water containing hydrated lime if water is to be in contact with cylinders.
7. A 24-hour test run may be required.

END OF SECTION

Standards Committee Submittal Sheet

Name of preparer: Stan Johnson

Title/Position of preparer: Rotational Engineer, Research Division

Specification/Drawing/Item Title: Development Process

Specification/Drawing Number: N/A

Enter appropriate priority level:

(See last page for explanation) N/A

Sheet not required on editorial or minor changes to standards. Check with Standards Section.

NOTES:

1. All Submittal Sheets must be completed and sent to the Standards Section by the Standards Committee suspense date as shown on the Web.
(<http://www.udot.utah.gov/go/standardscommittee>)
2. The Preparer of the Submittal Sheet or the Standards Committee member (or authorized substitute) responsible for the submittal must be present at the Standards Committee meeting and capable of discussing and answering all questions related to the submittal. The item will be postponed to a later meeting if one of these people is not present.
3. Notify the Standards Section immediately of any changes that impact the presentation to include absence of sponsor or delay in presentation.

Complete the following: (Use additional pages as needed.)

- A. Why? Detail the reason for changing the Standard (Specification or Drawing), what has initiated a new Standard, or what has caused a new or changed item of interest.

During the April 24, 2008 Standards Committee meeting the process to develop and approve new Standards was extensively discussed. Refer to the agenda package for the August 28 meeting, minutes of the April 24 meeting, agenda item 2 for relevant discussion.

This item is a draft proposal for review and discussion.

- B. Measurement, Payment, Acceptance, and Documentation:

1. How is Measurement and Payment handled? Existing (from the measurement and payment document), modified, or new measurement and payment to be included with all Standard Specifications or Supplemental Specifications.

N/A

2. How is Acceptance and Documentation handled? Existing (from the acceptance and documentation document), modified, or new acceptance and documentation to be included with all Standard Specifications or Supplemental Specifications. Include Contractor Submittals, Inspection Elements, and Documentation.

N/A

C. Stakeholder Notification for AGC and ACEC:

By email provide the AGC and ACEC Standards Committee member a copy of all pertinent information relating to the specification or drawing. Detail all responses below. Indicate if no comments were received.

Note: There is a two-week response time set for this item.

Refer to the Standards Committee Web site, Members page at <http://www.udot.utah.gov/main/f?p=100:pg::::1:T,V:659> for the respective e-mail addresses.

AGC Comments: (Use as much space as necessary.)

N/A

ACEC Comments: (Use as much space as necessary.)

N/A

D. Stakeholders? From the list provided, document the stakeholders contacted, detailing: the company, name of contact, how contacted (by phone, email, hard copy, or in person), concerns, and comments of the change. Stakeholders:

Note: There is a two-week response time set for this item. Allow Stakeholders two weeks to process and respond to coordination requests. All areas should try to complete review and comment as soon as possible but within two weeks.

In-house (for example, preconstruction, materials, construction, safety, design, maintenance) (Include all applicable in-house areas even if not listed above.)

No additional coordination required at this time beyond what was done in preparing the information. Further coordination will be completed when the item is ready for approval.

Construction Engineers

Contractors (Any additional contacts beyond "C" above.)

Suppliers

Consultants (as required) (Any additional contacts beyond “C” above.)

FHWA (To be accomplished as part of the two-week process before submitting to the Standards for inclusion on the Standards Committee agenda.) (This is in addition to the requirements of UDOT Policy 08A5-1, procedure 08A5-1.3.)

Others (as appropriate)

E. Other impacted areas, systems, or personnel. (Consider all impacts and possible changes to these areas during the preparation process. Coordinate with all appropriate areas for the respective item. List all impacts and action taken.)

1. Minimum Sampling and Testing Requirements
N/A
2. Business Systems (Electronic Bid System, Project Development Business System, Electronic Program Management, Computer-Aided Drafting and Design, etc.)
N/A
3. Implementation Plan (Provide detailed instructions on how the subject item will be implemented to include notification of all interested parties and training requirements.)
N/A

F. Costs? (Estimates are acceptable.)

1. Additional costs to average bid item price.
N/A
2. Operational (For example, maintenance, materials, equipment, labor, administrative, programming).
N/A
3. Life cycle cost.
N/A

- G. Benefits? (Provide details that can be used to complete a Cost – Benefit Analysis.)
(Estimates are acceptable.) (If no costs, what is the benefit of making this change?)

**To provide a standardized process for new items coming to Standards Committee.
Assists preparer with determining action and direction to take.**

- H. Safety Impacts?
N/A

- I. History? Address issues relating to the current usage of the item and past reviews,
approvals, and/or disapprovals.
N/A

Priority Explanation

Enter the appropriate priority in the box on the first page of the document.

- Priority 1 Upon posting, this impacts all projects in construction and design with a Change Order, Addenda, and immediate change to projects being advertised.
- Priority 2 Upon posting, this impacts projects being advertised.
- Priority 3 Upon posting, the approved standard takes effect **four weeks** later for projects being advertised.

Line Item for August 28th, 2008 Standards Committee Meeting:
*Development Recommendation for Handling New Technologies, and Updating the
Standards Committee*

In response to the April 24th, 2008 Standards Committee Meeting action item with regards creating a development recommendation to handle new technologies, the following flowchart is presented.

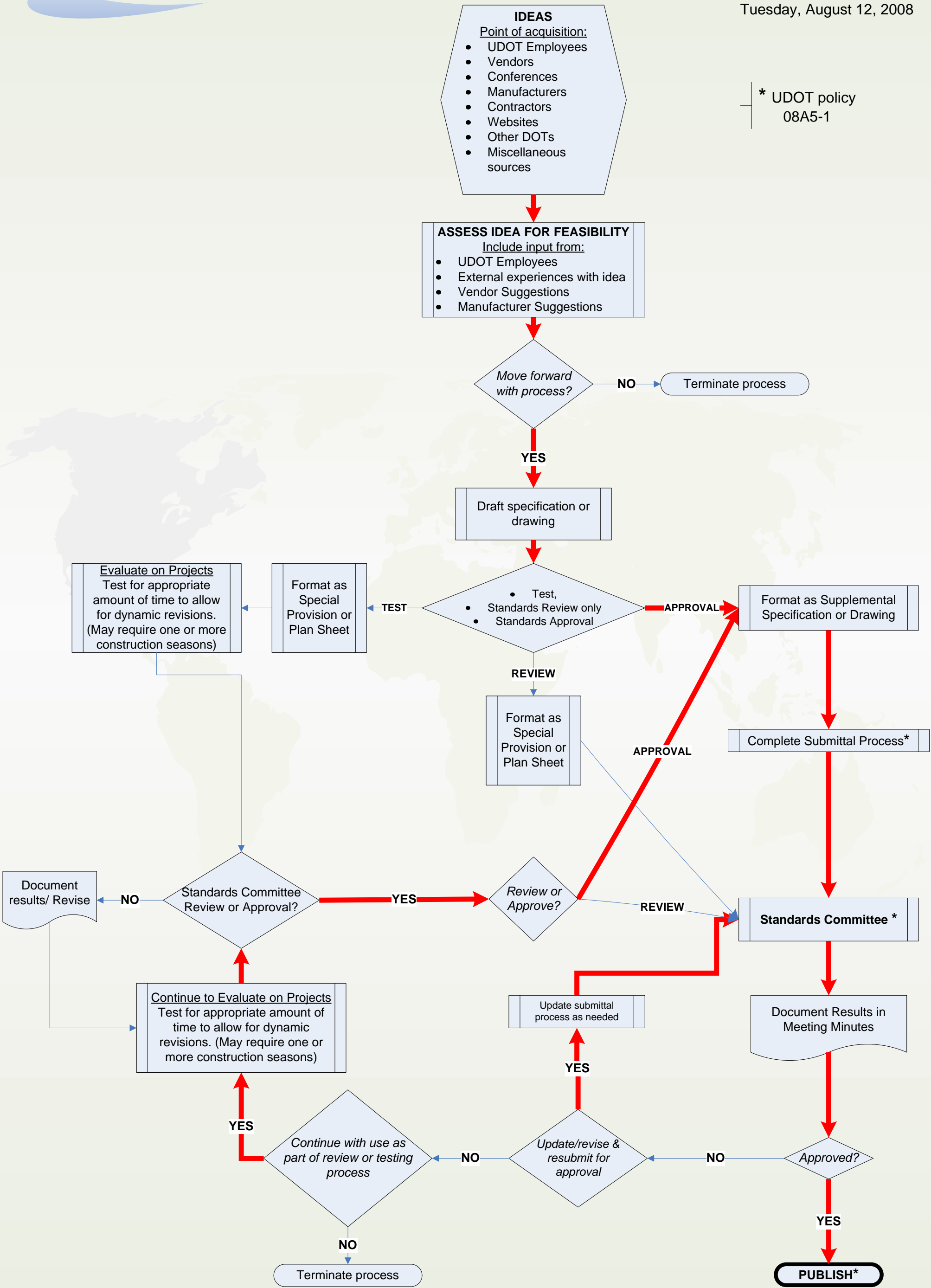
The flowchart was created under the direction of Shana Lindsey, and is the result of multiple discussions with the persons listed below, with succeeding iterations based on evolving feedback from said personnel.

1. Barry Axelrod—Standards
2. Patti Charles--Standards
3. Ken Berg—New Products Engineer
4. Rich Clarke—Maintenance Engineer
5. Ray Cook—Senior Design Engineer
6. Patrick Cowley—Construction Resource Engineer
7. Mike Donovan—Safety Specialist
8. John Leonard—Engineering Manager II
9. George Lukes— Materials Implementation Engineer
10. Jason Richins—Transportation Technician
11. Glen Schulte— General Maintenance Worker I
12. Greg Searle— Construction
13. Wes Starkenburg— Engineer III

Standards Committee Update Process

Tuesday, August 12, 2008

* UDOT policy
08A5-1



Action Item Update for August 28, 2008 Standards Committee Meeting

Item 1, SW Standard Drawings, cracking issue. Richard Miller indicated there is no current impact. He discussed this with Boyd Wheeler and they recommend the item be closed.

Item 2, Review Process. Item on agenda.

Item 3, Continue coordination and review of the DD Drawings. After further review this item is being withdrawn. Item can be close.

End of Agenda Package